

WHAT IS CLAIMED IS:

1. An image reading apparatus comprising:  
an original plate on which a transparent  
original is installed;
- 5 a transparent original guide unit for  
installing the transparent original at a  
predetermined position on said original plate;
- 10 a light source unit constituted so that it can  
be installed at plural positions with respect to said  
transparent original guide unit and having a surface  
light source for illuminating the transparent  
original; and
- 15 an image reading unit for reading an image of  
the transparent original through said original plate;
- 20 wherein the transparent original is installed  
inside of said transparent original guide unit  
installed on said original plate and in contact with  
said original plate and;  
said light source unit is contacted with the  
transparent original and urges the transparent  
original against said original plate.
- 25 2. An image reading apparatus according to  
claim 1, wherein the transparent original is urged  
against said original plate by a weight of said light  
source unit itself.

3. An image reading apparatus according to  
claim 1, wherein an effective illuminating surface of  
said light source unit is greater than an entire  
image surface of one of plural images included in the  
5 transparent original and smaller than the entirety of  
the plural images.

4. An image reading apparatus according to  
claim 1, wherein said image reading unit includes a  
10 focus lens having a rod lens array.

5. An image reading apparatus according to  
claim 3, wherein a contact surface between said light  
source unit and said transparent original guide unit  
15 is provided with sliding preventing means.

6. An image reading apparatus according to  
claim 5, wherein said sliding preventing means have a  
configuration including continuous triangular or  
20 wave-shaped or similar combinable shapes and a  
plurality of said sliding preventing means are  
provided on both said light source unit and said  
transparent original guide unit continuously or  
discontinuously.

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7. An image reading apparatus according to  
claim 5, wherein said sliding preventing means are

formed by sticking soft members having great coefficient of friction onto one or both of said light source unit and said transparent original guide unit.

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8. An image reading apparatus according to claim 3, wherein a transparent original having plural image frames can be installed in said transparent original guide unit, and a maximum width of the 10 effective illuminating surface of said light source unit is smaller than a longitudinal side of an effective image area of an entire maximum transparent original settable in said transparent original guide unit.

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9. An image reading apparatus according to claim 3, wherein said transparent original guide unit has transparent original installing reference means and an image position mark, and said light source 20 unit has an image position aligning mark corresponding to the image position mark of said transparent original guide unit.

10. An image reading apparatus according to claim 1, wherein said image reading unit is designed 25 to illuminate light source light onto a reflection type original installed on said original plate and to

read the image by photo-electrically converting light reflected from a surface of the original.

11. An image reading apparatus according to  
5 claim 3, further comprising positioning means for determining a relative position between the transparent original and said transparent original guide unit and said light source unit, and wherein, by the positioning of said positioning means, said  
10 light source unit can illuminate the entirety of at least any one image surface of among plural images included in the transparent original.

12. An image reading apparatus according to  
15 claim 11, wherein said positioning means include a regulating portion for positioning the transparent original with respect to said transparent original guide unit.

20 13. An image reading apparatus according to  
claim 11, wherein said positioning means include a convex/concave portion provided between said transparent original guide unit and said light source unit.

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14. An image reading apparatus according to  
claim 1, wherein R-working is provided partially or

totally on an outer periphery of a light emitting surface of said light source unit.

15. An image reading apparatus according to  
5 claim 14, wherein R-working is provided partially or totally on an outer periphery of a surface of said light source unit with which the transparent original is contacted.

10       16. An image reading apparatus according to  
claim 1, wherein an elastic member is provided along an outer periphery of a rectangular hole formed in said transparent original guide unit at a side of said transparent original guide unit opposed to said  
15 original plate.

17. An image reading apparatus for reading a transparent original in which a transparent original illuminating device, a transparent original, an  
20 imaging lens and a reading sensor are arranged in order,

wherein said transparent original illuminating device is provided at its transparent original side with a plurality of urging portions disposed at  
25 positions corresponding to an out of an image area of the transparent original and protruded above a light generating surface, and the transparent original is

urged against said transparent original plate by said urging portions.

18. An image reading apparatus according to  
5 claim 17, wherein both surfaces of the transparent original are located within the depth of field of said imaging lens by positioning the light emitting surface of said transparent original illuminating device at the transparent original side, said  
10 plurality of urging portions and a surface of said transparent original plate at the transparent original side within the depth of field of said focusing lens.

15 19. An image reading apparatus according to  
claim 17, wherein said plurality of urging portions are provided on an out of a light emitting area of said transparent original illuminating device.

20 20. An image reading apparatus according to  
claim 17, wherein each of said plurality of urging portions is greater than a perforation hole of the transparent original.

25 21. An image reading apparatus according to  
claim 17, further comprising a transparent original guide rested on said transparent original plate and

adapted to determine positions of the transparent original and said transparent original illuminating device.

5           22. An image reading apparatus according to  
claim 21, wherein said transparent original guide is  
provided with a spacer member located at a position  
out of an image area of the transparent original and  
inside of said urging portions between the  
10 transparent original and said transparent original  
plate.

23. A transparent original illuminating  
apparatus which is to be installed on a transparent  
15 original plate together with a transparent original  
when the transparent original is read by an image  
reading apparatus in which said transparent original  
plate, an imaging lens and a reading sensor are  
arranged in order,

20           wherein said transparent original illuminating  
apparatus is provided at its transparent original  
side with a plurality of urging portions disposed at  
positions corresponding to an out of an image area of  
the transparent original and protruded above a light  
25 generating surface, and the transparent original is  
urged against said transparent original plate by said  
urging portions.

24. A transparent original illuminating apparatus according to claim 23, further comprising a transparent original guide for determining a position with respect to the transparent original.